Application No. 10/521,428
Amendment Dated 5/11/2006
Reply to Office Action of 4/12/2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) An isolated nucleic acid molecule encoding a CB1b receptor, said nucleic acid molecule comprising a nucleotide sequence having at least 95% identity to a degenerate variant of SEQ ID NO: 1.

2. (Original) An isolated nucleic acid molecule encoding a CB1b receptor, said nucleic acid molecule comprising a nucleotide sequence having at least 95% identity to SEQ ID NO: 1.

3. (Original) An isolated nucleic acid molecule encoding a CB1b receptor comprising a nucleotide sequence of SEQ ID NO: 1.

4. (Original) The isolated nucleic acid molecule of claim 1, said nucleic acid molecule consisting of a nucleotide sequence of SEQ ID NO: 1.

5. (Original) An isolated nucleic acid molecule encoding a CB1a receptor comprising the amino acid sequence of SEQ ID NO: 2, or a sequence with 95% sequence identity thereto.

6. (Original) The isolated nucleic acid molecule of claim 5, wherein the nucleotide sequence encodes a polypeptide sequence consisting of the amino acid sequence of SEQ ID NO: 2

7. (Original) The nucleic acid molecule of claim 5, said nucleic acid molecule comprising a nucleotide sequence having at least 95% identity to a degenerate variant of SEQ ID NO: 1.

8. (Original) A vector comprising the nucleic acid molecule of claims 1 or 5.

9. (Original) A host cell comprising the vector of claim 8.

10. (Original) The cell of claim 9, wherein the cell expresses a polypeptide encoded by the nucleic acid molecule.

11. (Original) A purified polypeptide of the CB1b receptor comprising an amino acid sequence having at least 95% identity to the amino acid sequence of SEQ ID NO: 2.

12. (Original) The purified polypeptide of claim 11, wherein the amino acid sequence comprises the amino acid sequence of SEQ ID NO: 2.

13. (Original) A method for producing a CB1b receptor comprising:

a) culturing the host cell of claim 9 under conditions whereby said receptor is produced, and

b) recovering the receptor from the host cell culture or culture medium.

14. (Cancelled)

15. (Cancelled)

16. (Original) A method for identifying a compound which binds to the CB1b receptor, comprising

a) contacting the polypeptide of the CB1b receptor of claim 11 or 12 with a test compound, and

b) determining if the receptor binds to the test compound.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Original) A screening system wherein the modulatory ability of a test compound is determined by screening the compound against a panel of cannabinoid receptors, said panel comprising CB1b and at least one other cannabinoid receptor family member.

23. (Original) A screening system of claim 22, wherein the other cannabinoid receptor family member is selected from: CB1, CB1a and CB2.

24. (Original) A screening system of claim 23, wherein the test compound is screened against CB1b and at least CB1 and CB1a.

25. (Original) A screening system of claim 24, wherein the test compound is screened against CB1b and at least CB1, CB2 and CB1a.

26. (Original) A method for determining the selectivity of a test compound against a cannabinoid receptor family member, comprising determining the ability of the test compound to modulate each of a panel of cannabinoid receptors, said cannabinoid receptor panel comprising the CB1b receptor and at least one other cannabinoid receptor selected from: CB1, CB2 and CB1a.

27. (Original) The method of claim 26, wherein a profile of the modulatory ability of the test compound is compiled.

28. (Original) A method for identifying a compound which binds to the CB1b receptor, comprising:

a) contacting the cell of claim 10 with a test compound, and

determining if the receptor binds to the test compound.